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#### Amendments to the Claims:

: September 4, 2003

This listing of claims replaces all prior versions and listings of claims in the application:

### **Listing of Claims:**

### 1. (Currently Amended) A computer implemented method, comprising:

accessing a first electronic document using a user application, the first electronic document including embedded digital signature rights information and [[a]] an embedded digital signature module, the digital signature module being operable to perform digital signature operations on the first electronic document; [[and]]

extracting the embedded digital signature rights information and the embedded digital signature module using the user application;

<u>authenticating the extracted digital signature rights information and the extracted digital signature module;</u>

using the digital signature module to perform one or more of the digital signature operations on the first electronic document in the user application where using the digital signature module to perform the one or more digital signature operations includes:

receiving a request to perform a digital signature operation,

determining whether the requested digital signature operation is authorized,

and if the digital signature operation is authorized, using the digital signature

module to perform the requested digital signature operation;

identifying a second electronic document, the second electronic document being a document other than the first electronic document, the second <u>electronic</u> document being identified in the digital signature rights information of the first electronic document; and

using the digital signature module to perform one or more of the digital signature operations on the second electronic document in the user application.

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2. (Previously Presented) The method of claim 1, wherein using the digital signature module includes:

validating the digital signature module; and using the digital signature module to perform other digital signature operations only if the digital signature module is validated.

(Previously Presented) The method of claim 1, wherein:
 using the digital signature module includes signing the first and second electronic documents.

4. (Previously Presented) The method of claim 1, wherein:
using the digital signature module includes authenticating a digital signature in the first and second electronic documents.

5. (Original) The method of claim 1, wherein:
using the digital signature module includes using the digital signature module running on a server.

6. (Original) The method of claim 1, wherein:

including the digital signature module includes including a reference to the digital signature module.

- 7. (Cancelled)
- 8. (Currently Amended) The method of claim [[7]] 1, wherein:

determining whether the requested digital signature operation is authorized includes determining whether the requested digital signature operation is authorized based on rights information associated with the digital signature module, the user application, or the first electronic document.

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### 9. (Previously Presented) The method of claim 8, wherein:

the rights information is operable to specify the digital signature operations that can be performed on the first and second electronic documents.

### 10. (Previously Presented) The method of claim 9, wherein:

the rights information is operable to specify constraints on the digital signature operations that can be performed on the first or second electronic document.

### 11. (Previously Presented) The method of claim 1, wherein:

using the digital signature module includes performing a digital signature operation on a portion of the first or second electronic document or on a user added content portion of the first or electronic document.

# 12. (Previously Presented) The method of claim 1, further comprising:

receiving input adding content to the first or second electronic document in the user application, wherein using the digital signature module includes performing a digital signature operation on the added content.

# 13. (Previously Presented) The method of claim 1, further comprising:

receiving input modifying content of the first or second electronic document in the user application, wherein using the digital signature module includes performing the digital signature operations on the modified content.

## 14. (Previously Presented) The method of claim 1, wherein:

the first or second electronic document is a PDF document.

#### 15-17. (Cancelled)

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18. (Currently Amended) An electronic document, comprising:

electronic content;

digital signature rights information, the digital signature rights information being embedded in the electronic document, the digital signature rights information identifying one or more other electronic documents, each one or more other electronic documents comprising electronic content, the digital signature rights information enabling one or more digital signature operations on the electronic document and the one or more other electronic documents; and

a digital signature module, the digital signature module being embedded in the electronic document, the digital signature module being operable upon loading to perform digital signature operations on the electronic content of the electronic document and the electronic content of the one or more other electronic documents, where using the digital signature module to perform the one or more digital signature operations includes:

receiving a request to perform a digital signature operation,

determining whether the requested digital signature operation is authorized,

and if the digital signature operation is authorized, using the digital signature module to

perform the requested digital signature operation.

19. (Cancelled)

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### 20. (Currently Amended) A computer implemented method, comprising:

receiving a signed first electronic document, the first electronic document including digital signature rights information, a digital signature module and a digital signature generated by the digital signature module, the digital signature module being operable to perform digital signature operations;

accessing the first electronic document in a user application;

validating the digital signature in the first electronic document using the digital signature module in the user application;

using the digital signature module to perform one or more of the digital signature operations, where using the digital signature module to perform the one or more digital signature operations includes:

receiving a request to perform a digital signature operation,

determining whether the requested digital signature operation is authorized, and if the digital signature operation is authorized, using the digital signature module to perform the requested digital signature operation;

accessing a second electronic document, the second electronic document being a document other than the first electronic document, the second electronic document being identified by the digital signature rights information in the first electronic document; and performing digital signature operations on the second electronic document.

# 21. (Previously Presented) The method of claim 20, further comprising:

performing a digital signature operation embedding digital signature information in the first or second electronic document, the digital signature operation being performed using the digital signature module after optionally modifying the first or second electronic document; and

transmitting the first or second electronic document, including the embedded digital signature module and the digital signature information.

### 22. (Previously Presented) The method of claim 20, wherein:

receiving a signed first electronic document includes receiving the signed first electronic document as a user in a multi-user sequence defined by a workflow; and

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transmitting the first electronic document includes transmitting the first electronic document to another user in the workflow.

### 23. (Previously Presented) The method of claim 20, wherein:

performing the digital signature operation includes performing the digital signature operation on a portion of the first or second electronic document; and

transmitting the first or second electronic document includes transmitting only the portion of the first or second electronic document on which the digital signature operation is performed.

# 24. (Previously Presented) The method of claim 20, further comprising:

receiving input adding content to the first or second electronic document in the user application, wherein using the digital signature module includes performing a digital signature operation on the added content.

## 25. (Previously Presented) The method of claim 20, further comprising:

receiving input modifying content of the first or second electronic document in the user application wherein using the digital signature module includes performing a digital operation on the modified content.

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26. (Currently Amended) A computer program product implementing a user application, tangibly embodied in a computer readable medium, the computer program product comprising instructions operable to cause data processing equipment to:

access a first electronic document, the first electronic document including embedded digital signature rights information and [[a]] an embedded digital signature module, the digital signature module being operable to perform digital signature operations on the first electronic document;

extracting the embedded digital signature rights information and the embedded digital signature module using the user application;

authenticating the extracted digital signature rights information and the extracted digital signature module;

use the digital signature module to perform one or more of the digital signature operations on the first electronic document where the instructions for using the digital signature module to perform the one or more digital signature operations include instructions to:

receive a request to perform a digital signature operation, <u>determine</u> whether the requested digital signature operation is authorized, and if the digital signature operation is authorized, use the digital signature module to perform the requested digital signature operation:

identify a second electronic document, the second electronic document being a document other than the first electronic document, the second electronic document being identified in the digital signature rights information of the first electronic document; and

use the digital signature module to perform one or more of the digital signature operations on the second electronic document.

27. (Previously Presented) The computer program product of claim 26, wherein the instructions for using the digital signature module cause the data processing equipment to:

validate the digital signature module; and

use the digital signature module to perform other digital signature operations only if the digital signature module is validated.

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28. (Previously Presented) The computer program product of claim 26, wherein the instructions for using the digital signature module cause the data processing equipment to:

sign the first and second electronic documents.

29. (Previously Presented) The computer program product of claim 26, wherein the instructions for using the digital signature module cause the data processing equipment to:

authenticate the first and second electronic documents.

30. (Original) The computer program product of claim 26, wherein the instructions for using the digital signature module cause the data processing equipment to:

use the digital signature module running on a server.

- 31. (Original) The computer program product of claim 26, wherein including the digital signature module includes including a reference to the digital signature module.
- 32. (Cancelled)
- 33. (Currently Amended) The computer program product of claim [[32]] 26, wherein the instructions for determining whether the requested digital signature operation is authorized cause the data processing equipment to:

determine whether the requested digital signature operation is authorized based on rights information associated with the digital signature module, the user application, or the first electronic document.

- 34. (Previously Presented) The computer program product of claim 33, wherein the rights information is operable to specify the digital signature operations that can be performed on the first or second electronic document.
- 35. (Previously Presented) The computer program product of claim 34, wherein the rights information is operable to specify constraints on the digital signature operations that can be performed on the first or second electronic document.

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36. (Previously Presented) The computer program product of claim 26, wherein the instructions for using the digital signature module cause the data processing equipment to:

perform a digital signature operation on a portion of the first or second electronic document or on a user added content portion of the first or second electronic document.

37. (Previously Presented) The computer program product of claim 26, further comprising receiving input adding content to the first or second electronic document in the user application, wherein the instructions for using the digital signature module cause the data processing equipment to:

perform a digital signature operation on the added content.

38. (Previously Presented) The computer program product of claim 26, further comprising receiving input modifying content of the first or second electronic document in the user application, wherein the instructions for using the digital signature module cause the data processing equipment to:

perform a digital signature operation on the modified content.

39. (Previously Presented) The computer program product of claim 26, wherein: the first or second electronic document is a PDF document.

40-42. (Cancelled)

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43. (Currently Amended) A computer program product implementing a user application, tangibly embodied in a computer readable medium, the computer program product comprising instructions operable to cause data processing equipment to:

receive a signed first electronic document, the first electronic document including digital signature rights information, a digital signature module and a digital signature generated by the digital signature module, the digital signature module being operable to perform digital signature operations;

access the first electronic document in the user application;

validate the digital signature in the first electronic document using the digital signature module in the user application;

use the digital signature module to perform one or more of the digital signature operations, where the instructions for using the digital signature module to perform the one or more digital signature operations include instructions to:

receive a request to perform a digital signature operation,

determine whether the requested digital signature operation is authorized, and if the digital signature operation is authorized, use the digital signature module to perform the requested digital signature operation;

access a second electronic document, the second electronic document being a document other than the first electronic document, the second electronic document being identified by the digital signature rights information in the first electronic document; and

perform digital signature operations on the second electronic document.

44. (Previously Presented) The computer program product of claim 43, further comprising instructions operable to cause the data processing equipment to:

perform a digital signature operation embedding digital signature information in the first or second electronic document, the digital signature operation being performed using the digital signature module after optionally modifying the first or second electronic document; and

transmit the first or second electronic document, including the embedded digital signature module and the digital signature information.

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45. (Previously Presented) The computer program product of claim 43, wherein:

the instructions for receiving a signed first electronic document cause the data processing equipment to receive the signed first electronic document as a user in a multi-user sequence defined by a workflow; and

the instructions for transmitting the first electronic document cause the data processing equipment to transmit the first electronic document to another user in the workflow.

46. (Previously Presented) The computer program product of claim 43, wherein:

the instructions for performing the digital signature operation cause the data processing equipment to perform the digital signature operation on a portion of the first or second electronic document; and

the instructions for transmitting the first or second electronic document cause the data processing equipment to transmit only the portion of the first or second electronic document on which the digital signature operation is performed.

- 47. (Previously Presented) The computer program product of claim 43, further comprising instructions operable to cause the data processing equipment to receive input adding content to the first or second electronic document in the user application, wherein the instructions for using the digital signature module cause the data processing equipment to perform a digital signature operation on the added content.
- 48. (Previously Presented) The computer program product of claim 43, further comprising instructions operable to cause the data processing equipment to receive input modifying content of the first or second electronic document in the user application, wherein the instructions for using the digital signature module cause the data processing equipment to perform a digital signature operation on the modified content.

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### 49. (Currently Amended) A computer system, comprising:

means for accessing a first electronic document using a user application, the first electronic document including <u>embedded</u> digital signature rights information and [[a]] <u>an</u> <u>embedded</u> digital signature module, the digital signature module being operable to perform digital signature operations on the first electronic document; [[and]]

means for extracting the embedded digital signature rights information and the embedded digital signature module using the user application;

means for authenticating the extracted digital signature rights information and the extracted digital signature module;

means for using the digital signature module to perform one or more of the digital signature operations on the first electronic document in the user application where using the digital signature module to perform the one or more digital signature operations includes:

receiving a request to perform a digital signature operation,

determining whether the requested digital signature operation is authorized,
and if the digital signature operation is authorized, using the digital signature
module to perform the requested digital signature operation;

means for identifying a second electronic document using a user application, the second electronic document being a document other than the first electronic document, the second document being identified in the digital signature rights information of the first electronic document; and

means for using the digital signature module to perform one or more of the digital signature operations on the second electronic document in the user application.

50. (Previously Presented) The system of claim 49, wherein using the digital signature module includes:

validating the digital signature module; and

using the digital signature module to perform other digital signature operations only if the digital signature module is validated.

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#### 51. (Previously Presented) The system of claim 49, wherein:

using the digital signature module includes signing the first and second electronic documents.

### 52. (Previously Presented) The system of claim 49, wherein:

using the digital signature module includes authenticating a digital signature in the first and second electronic documents.

### 53. (Previously Presented) The system of claim 49, wherein:

using the digital signature module includes using the digital signature module running on a server.

# 54. (Previously Presented) The system of claim 49, wherein:

including the digital signature module includes including a reference to the digital signature module.

#### 55. (Cancelled)

#### 56. (Currently Amended) The system of claim [[55]] 49, wherein:

determining whether the requested digital signature operation is authorized includes determining whether the requested digital signature operation is authorized based on rights information associated with the digital signature module, the user application, or the first electronic document.

## 57. (Previously Presented) The system of claim 56, wherein:

the rights information is operable to specify the digital signature operations that can be performed on the first and second electronic documents.

### 58. (Previously Presented) The system of claim 57, wherein:

the rights information is operable to specify constraints on the digital signature operations that can be performed on the first or second electronic document.

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### 59. (Previously Presented) The system of claim 49, wherein:

using the digital signature module includes performing a digital signature operation on a portion of the first or second electronic document or on a user added content portion of the first or electronic document.

### 60. (Previously Presented) The system of claim 49, further comprising:

means for receiving input adding content to the first or second electronic document in the user application, wherein using the digital signature module includes performing a digital signature operation on the added content.

### 61. (Previously Presented) The system of claim 49, further comprising:

means for receiving input modifying content of the first or second electronic document in the user application, wherein using the digital signature module includes performing the digital signature operations on the modified content.

### 62. (Previously Presented) The system of claim 49, wherein:

the first or second electronic document is a PDF document.